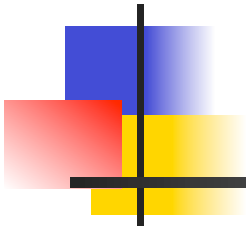


Sweet Home Schools New Teacher Orientation

Foundations of Instructional Design and Delivery

August 20, 2008



Today's Starter Activity:

- 1. Open the NTO Wiki
(sweethomenewteacherorientation.wikispaces.com)***
- 2. Sign into the Wiki***
- 3. Click on "Student Management" on the left hand side.***
- 4. Click on "Edit this page."***
- 4. Pick at least one quadrant. Use what you know to add to or start that section.***
- 5. Click Save when you are done.***



The Late Student

- The bell rings and the students have settled into their chairs and have started the opening task. One minute later, Christie shows up and walks in the room. She goes to her seat without saying a word.
- When you ask if she has a pass, she tells you that she was with her math teacher. This is the third time this week that she has been late.

6



The Blurter

- Jeanine is a bright girl but has issues with social appropriateness. She has a lot to say and is not shy about sharing. She'll look for any opportunity to offer her opinion whether it is wanted or not. When Mrs. Brace asks a question, rather than wait to be called upon, Jeanine will instantly shout out a response. Today, Mrs. Brace asks, "What is three times....." Jeanine shouts out "12!"

6



The Disrespectful Student

- Angie makes it very clear that she does not like your class or anyone in it. Her constant sighs, rolled eyes and outright disdain are apparent to all. When asked to work in a group, her body language and movement are loud and angered. You ask the class to complete a written assignment and Angie says to herself but loud enough for all to hear, "Yeah- this is great. I can't wait to do this."

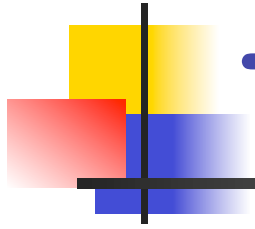
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The Bathroom Attendant

- Academically, Charles is pretty capable and performs in class- at times. At other times, he seems preoccupied. He usually runs into class just before the bell, sometimes he is late. More often than not, three or four minutes into class, he will ask to go to the bathroom. To the best of your knowledge, there is no medical issue at work. You have been granting permission but are growing impatient.
- Charles comes up front and again asks to go to the Bathroom.

8



Two Questions

- **Think of something that you believe you know really well-**
 - **How do you know that you know it really well?**
 - **How did you have to do to learn it that well?**



Questions For the Day...

- **How do people learn?**
- **How do I decide what kids need to learn?**
- **How do I design effective learning experiences?**
- **What should be included in every learning experience?**



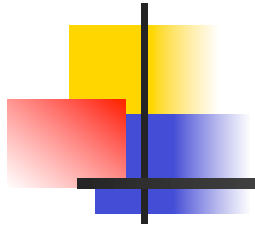
What Learning Isn't....

- **Learning is not the storage of “stuff” in isolated pieces.**
- **Learning is not simply recalling.**
- **Learning is not an isolated activity.**
- **Learning is not like on/off.**
- **Learning is not following procedures.**
- **Learning is not something we assume happens when we instruct.**



What Learning Is....

- **Learning is what happens when we integrate new ideas into what we already know.**
- **Learning is what happens when we attend to, engage and reflect upon new ideas and experiences.**
- **Learning deepens and strengthens as we have opportunities to extend and refine our understanding.**
- **Real learning means we can transfer our understanding to new situations.**



The Principles of Learning

- 1. Learning is maximized in an environment that is physically, emotionally and psychologically safe.**
- 2. Learning Requires Attention To New Information/ Knowledge.**
- 3. Learning requires active, cognitive engagement in the right stuff. Learning requires construction.**
- 4. Learning occurs when individuals connect what they already know with new information/ experiences.**
- 5. Deep learning requires connection making and pattern seeking.**



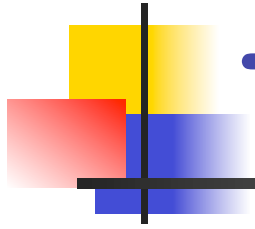
Instructional Big Ideas....

- 1. Effective teachers plan units then lessons. Planning starts with standards not resources.**
- 2. Good teachers make sure the kids are absolutely clear about what is to be learned.**
- 3. Real learning requires real time and real student engagement.**
- 4. Students should produce some original product each day.**
- 5. Deeper understanding requires connections built through repetition, variation and depth of thought**



Instructional Expectations..

- **Unit thinking precedes lesson design.**
- **Use starter activities on a daily basis.**
- **Establish a clear learning goal, post it and make the goal visible to the kids.**
- **Students should produce with the content- orally, written, physical, spatial**
- **Use Similarities and Differences to foster connections and deepen understanding.**



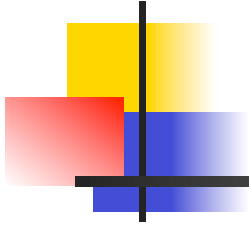
The Importance of Unit Design

- **Units are the basic building block of instructional design.**
- **Clearly defined knowledge and skill students are to learn**
- **Anchored by assessments- student created products or performances that provide evidence of learning.**
- **Represent 12-15 hours of instruction**



Units are designed “backwards”

- **Start with the learning not the lessons!**
 - **First...**Survey the next big chunk...topic, concept, skill...to initially identify the critical knowledge and skill.
 - **Then..** Examine and identify appropriate Standards and performance indicators. Nouns become vocabulary/ concepts and verbs (plus objects of verbs) become skills.
 - **Then...** What big ideas and/or concepts connect all the knowledge and skill?
 - **Then....**What big questions help frame and connect the big ideas, knowledge and skill?



Unit Thinking

- **Step One:** Survey the Major topics, themes or big ideas.
- **Step Two:** Identify the applicable standards.
- **Step Three:** Use performance indicators to identify Knowledge and skills. Brainstorm other necessary knowledge and skills.
- **Step Four:** Build core assessment Tasks. At the end of the unit, what should students be able to produce?



Grade Three Unit: “Making Sense of Nonfiction Text”

- **Step One: Survey the Major topics, themes or big ideas.**
 - **Critical Attributes of Non-fiction text; Main idea vs. supporting detail; monitoring comprehension; report writing**
- **Step Two: Examine the applicable standards.**

Listen	3.L.1.5 ~ Identify a conclusion that summarizes the main idea, with assistance	3.W.1.1 ~ Use at least two sources of information in writing a report
Read	3.R.1.5 ~ Identify main ideas and supporting details in informational texts	3.W.1.2 ~ Take notes to record data, facts, and ideas, following teacher direction
Listen	3.L.1.3 Determine a sequence of steps given	3.W.1.3 ~ State a main idea and support it with facts and details
Lit Comp	3.2.2 Read grade-level texts with decodable and irregularly spelled words at appropriate speed, accuracy, and expression	3.W.1.4 ~ Use organizational patterns such as compare/contrast and time/order for expository writing
Lit Comp	3.4.2 ~ Use comprehension strategies to monitor own reading (e.g., predict/confirm, reread, attend to vocabulary, self-correct) to clarify meaning of text	



“From Standards to Learning Goals”

- **Step Three:** Use performance indicators to **identify vocabulary and skills**. Brainstorm other necessary knowledge and skills.
 1. Examine the Performance Indicators: Highlight nouns (= vocabulary) and verbs plus objects (=skills)
 2. Put vocabulary on one color post-it. Put skills on different color.
 3. Brainstorm all other vocabulary on same color post-it note. Brainstorm all other skills on skill-color.
 4. Ask- Have I missed any vocabulary or skill by assuming that kids can do them?
 5. Add a literacy/ thinking skill- build literacy skills across the content area.



Grade Three Unit: “Making Sense of Nonfiction Text”

- Examine the Performance Indicators: Highlight nouns (= vocabulary) and verbs plus objects (=skills)

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		3.W.1.4 ~ Use organizational patterns such as compare/contrast and time/order for expository writing

What other vocabulary and skill must be taught?



Effective Lesson Designs...

1. **Have you identified a clear purpose- the learning goal?**
2. **What will the central learning tasks be? How will information be presented and practiced?**
3. **How will you hook the students and Bridge to the body.**
4. **Plan for student reflection and closure.**
5. **How will you be able to check each student's understanding?**



Which of These Is A Learning Goal?

- **Students will better understand the concept of friendship.**
- **Students will make a PowerPoint Presentation**
- **“Movie: The Amazing Sun”**
- **Compare and contrast fractions and decimals.**
- **Guided Reading**
- **Writing a memoir**
- **You will improve how well you organize ideas in writing.**

Learning Goals



- **What is a learning goal?**
 - Lesson/ learning experience specific.
 - What kids should better understand by participating in classroom activities.
 - Not agendas or the activities.
 - The purpose for having kids do what we ask them to do
 - What we want them to learn and how well.
 - Clear and unambiguous
 - Specific and clear to the student.



Step Six: From Knowledge Targets to Learning Goals

Knowledge Target	Assessing Progress/ Checking Understanding
Student will better understand...	By...
concept of main idea	explaining the similarities and differences between main ideas and supporting details.

The students will better understand the concept of Main idea by explaining the similarities and differences between main ideas and supporting details.



Planning the body of the lesson...

- **Key considerations....**
 - **What kind of knowledge do the kids need to learn: declarative v. procedural**
 - **Is this the first teaching or a follow up lesson?**
 - **How important is the content? Is it worthy of repetition, variety and depth?**



Examine the Following....

- **Photosynthesis**
 - **The Pythagorean Theorem**
 - **Making precise observations**
 - **Analyzing a chemical reaction**
-
- **What is the difference between the first two and last two?**



Two Kinds of Knowledge

- **Declarative Knowledge**

- “Declare”- to state, to reveal, to make a full statement
- Knowledge that can be related to others/ expressed verbally
- Stored information
- Facts, concepts, generalizations, principles

- **Procedural knowledge**

- “Procedure”- a series of steps to accomplish an end; a way of performing something
- Knowledge that cannot be told but must be done.
- “How to do” something
- Physical skills, thinking skills, processes

Declarative Knowledge	Criterion	Procedural Knowledge
Democracy, numerator, amoeba, rules of basketball	Examples	Write a paragraph, read a bar graph, detect bias, comparing, Interpreting
Recall, list characteristics, tell or relate	What the learner does	Mental or physical performance- perform or demonstrate
Things you can tell others about: Facts, concepts, time sequences, Principles and generalizations	Forms taken	Knowledge you have to show to someone or do for them: Skills, processes, decision-making, problem solving
Construct meaning, organize, store- Get students to engage and work with the content. Use graphic representation to organize and store it.	How Taught	Construct models, shape, internalize. Show them how, share the steps, Practice together, Practice by self, give feedback, Practice again
23		

Complete This Chart At Your Table

Similarities:	
Difference: Declarative Knowledge	Difference: Procedural Knowledge



Examine the Following....

- **How plants create sugar using photosynthesis.**
- **Making observations during a science experiment.**
- **Reading sheet music**
- **Primary vs secondary colors.**
- **Printmaking**
- **Describing the proper grip and release point of a football**
- **Throwing a football with a tight spiral**



Declarative vs. Procedural Knowledge

- **How would teaching the term “checkbook balancing” be similar to and different from teaching “how to balance a checkbook?”**

New American Lecture	Criterion	Direct Instruction
	Strategy Name	
	Critical Steps or moves	
	What the learner does	
	What the teacher does	
	Why it works	27



Forms of Declarative Knowledge

- **Type One: Basic Details**
 - **Facts, Vocabulary Terms, Time Sequences, Steps in a Process**
- **Type Two: Generalizations and Principles**
 - **Generalizations** are statements for which examples can be provided.
 - **Principles** describe cause and effect relationships. Examples are geared more toward predicting what will occur in a given situation.



Teaching Declarative Knowledge: Details

- **Must create attention to the targeted knowledge**
- **Learner must engage the knowledge- the learner must do something in his/her head.**
- **Dual coding theory- declarative knowledge is coded both linguistically (verbal/written) and non-linguistically (spatial, sensory, kinscetic)**



Teaching Declarative Knowledge: First Teaching

- 1. Provide input in clear organized fashion: lecture, reading, video. Students take notes.**
- 2. Students “make notes”/ construct meaning:**
 - 1. Written or visual summaries.**
 - 2. Have students create non-linguistic representations.**
 - 3. Make and explain connections.**



Teaching Declarative Knowledge: Type Two

5. Then Teach RED!

- **Repetition:** multiple exposures
- **Elaboration:** Beyond recitation or simple description.
- **Diversity:** engaging the vocabulary in different ways.



Teaching Declarative Knowledge: Type Two

- **Ideas for Vocabulary Diversity**
 - **Analogies/ Metaphors**
 - **Compare to other words**
 - **Connection webs.**
 - **Word sorts**
 - **Synonyms/ antonyms**

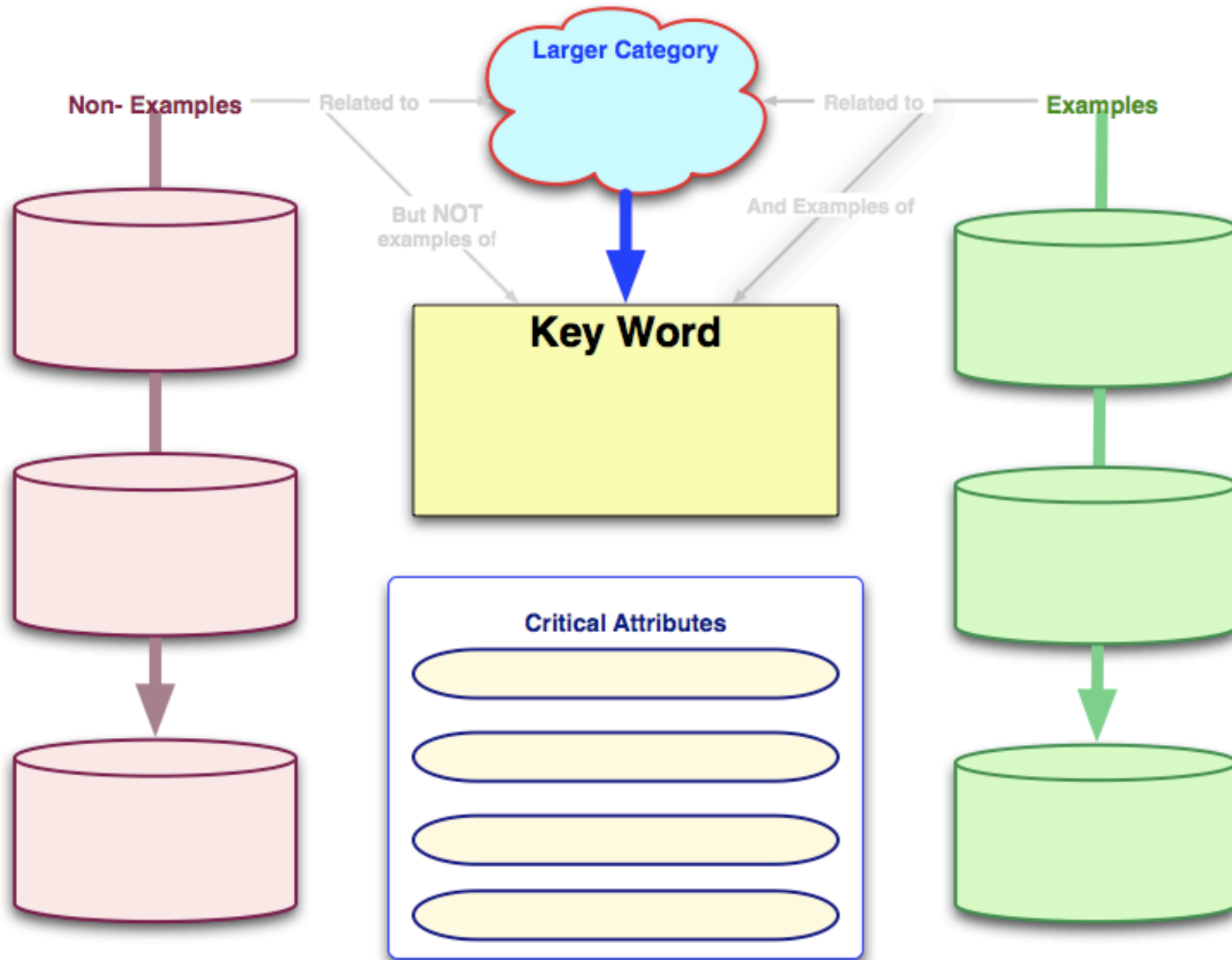
Try this web page: [Vocabulary Ideas](#)



Teaching Declarative Knowledge: Level Two

Term	Description		Multiple Exposures	
Main Idea	The author’s key message. Why he wrote the article. The focus of the writing. All ideas connect to it.	Good writers figure out the main idea and then the best way to lead the reader to it.	Compare to “detail”	Categorize statements
			Metaphor to city streets- why is main idea like NF Blvd?	Key Word Poster

Key Word Poster





Teaching Procedural Knowledge

How would you teach a youngster to put air in their bike tires?



Teaching Procedural Knowledge

- **Procedural knowledge requires....**
 - A “gradual release” of responsibility from teacher to learner.
 - **Models of the skill in use**
 - The steps in the process
 - A clear model of the steps in action
 - The model must make the skill transparent to the learner
 - **Opportunities to practice- one can’t learn the skill if they do not use the skill.**
 - Guided at first- coaching and supporting with immediate feedback.
 - Independent with feedback.



Teaching Procedural Knowledge: Simplified

First..... Tell Me How

Then..... Show Me How

Next..... Help me

Finally... Let Me